

IN THE CLAIMS:

1. (currently amended) For use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface to a slave device, a messaging system for facilitating communications between said master device and said slave device, comprising:

a channel level detector that reads a level of a first-in, first-out (FIFO) buffer of said slave device and compares said level to a threshold, said slave device providing a network interface to said switching network for said master device; and

an event driven message generator that issues an event driven message over said local interface to said master device when said level reaches said threshold.

2. (currently amended) The messaging system as recited in Claim 1 wherein said event driven message is transmitted in band with packets transmitted from said slave device to said master device.

3. (currently amended) The messaging system as recited in Claim 1 wherein packets transmitted to said master device are packets received by said slave device over said switching network said event driven message is transmitted out of band.

4. (currently amended) The messaging system as recited in Claim 1 wherein said switching network is an asynchronous transfer mode (ATM) network event driven message is transmitted across a local interface between said master device and said slave device.

5. (original) The messaging system as recited in Claim 1 wherein said threshold is user selectable.

6. (original) The messaging system as recited in Claim 1 wherein said level indicates a number of packets remaining in said FIFO buffer, said event driven message indicating to said master device as to when said FIFO buffer may underrun.

7. (original) The messaging system as recited in Claim 1 wherein said master device transmits additional packets to said slave device based on said event driven message.

8. (original) The messaging system as recited in Claim 1 wherein said level indicates a number of packets remaining in said FIFO buffer, said event driven message indicating to said master device as to when said FIFO buffer may overrun.

9. (original) The messaging system as recited in Claim 1 wherein said master device suspends transmission of packets to said slave device based on said event driven message.

10. (currently amended) For use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface to a slave device, a method for facilitating communications between said master device and said slave device, comprising:

reading a level of a first-in, first-out (FIFO) buffer of said slave device, said slave device providing an network interface to said switching network for said master device;

comparing said level to a threshold; and

issuing an event driven message to said master device over said local interface when said level reaches said threshold.

11. (currently amended) The method as recited in Claim 10 wherein said issuing comprises transmitting said event driven message in band with packets transmitted from said slave device to said master device.

12. (currently amended) The method as recited in Claim 10 wherein packets transmitted to said master device are packets received by said slave device over said switching network said issuing comprises transmitting said event driven message out of band.

13. (currently amended) The method as recited in Claim 10 wherein said switching network is an asynchronous transfer mode (ATM) network issuing comprises transmitting said event driven message across a local interface between said master device and said slave device.

14. (original) The method as recited in Claim 10 further comprising selecting said threshold.

15. (original) The method as recited in Claim 10 wherein said level indicates a number of packets remaining in said FIFO buffer, said event driven message indicating to said master device as to when said FIFO buffer may underrun.

16. (original) The method as recited in Claim 10 wherein said master device transmits additional packets to said slave device based on said event driven message.

17. (original) The method as recited in Claim 10 wherein said level indicates a number of packets remaining in said FIFO buffer, said event driven message indicating to said master device as to when said FIFO buffer may overrun.

18. (original) The method as recited in Claim 10 wherein said master device suspends transmission of packets to said slave device based on said event driven message.

19. (currently amended) For use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface to a slave device, a messaging system for facilitating communications between said master device and said slave device, comprising:

an aggregate level detector that determines storage levels of a plurality of channels associated with said slave device, said slave device providing a network interface to said switching network for said master device; and

a periodic message generator that periodically issues to said master device over said local interface a periodic message indicating said storage levels.

20. (currently amended) The messaging system as recited in Claim 19 wherein said periodic message is transmitted in band with packets transmitted from said slave device to said master device.

21. (currently amended) The messaging system as recited in Claim 19 wherein packets transmitted to said master device are packets received by said slave device over said switching network said periodic message is transmitted out of band.

22. (currently amended) The messaging system as recited in Claim 19 wherein said switching network is an asynchronous transfer mode (ATM) network periodic message is transmitted across a local interface between said master device and said slave device.

23. (original) The messaging system as recited in Claim 19 wherein said periodic message is contained in a single packet.

24. (original) The messaging system as recited in Claim 19 wherein said periodic message enables said master device to determine a variation between a first clock associated with said slave device and a second clock associated with said master device.

25. (original) The messaging system as recited in Claim 19 wherein said master device transmits additional packets to said slave device based on said periodic message.

26. (currently amended) For use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface to a slave device, a method for facilitating communications between said master device and said slave device, comprising:

determining storage levels of a plurality of channels associated with said slave device, said slave device providing a network interface to said switching network for said master device; and periodically issuing to said master device over said local interface a periodic message indicating said storage levels.

27. (currently amended) The method as recited in Claim 26 wherein said periodically issuing comprises transmitting said periodic message in band with packets transmitted from said slave device to said master device.

28. (currently amended) The method as recited in Claim 26 wherein packets transmitted to said master device are packets received by said slave device over said switching network said periodically issuing comprises transmitting said periodic message out of band.

29. (currently amended) The method as recited in Claim 26 wherein said switching network is an asynchronous transfer mode (ATM) network periodically issuing comprises

~~transmitting said periodic message across a local interface between said master device and said slave device.~~

30. (original) The method as recited in Claim 26 wherein said periodic message is contained in a single packet.

31. (original) The method as recited in Claim 26 wherein said periodic message enables said master device to determine a variation between a first clock associated with said slave device and a second clock associated with said master device.

32. (original) The method as recited in Claim 26 wherein said master device transmits additional packets to said slave device based on said periodic message.

33. (currently amended) For use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface to a slave device, a messaging system for facilitating communications between said master device and said slave device, comprising:

an event driven messaging subsystem, including:

a channel level detector that reads a level of a first-in, first-out (FIFO) buffer of said slave device and compares said level to a threshold, said slave device providing a network interface to said switching network for said master device, and

an event driven message generator that issues an event driven message to said master device when said level reaches said threshold; and

a periodic messaging subsystem, including:

an aggregate level detector that determines storage levels of a plurality of channels associated with said slave device, and

a periodic message generator that periodically issues to said master device over said local interface a periodic message indicating said storage levels, said master device controlling transmission of packets to said slave device based on at least one of said event driven message and said periodic message.

34. (currently amended) The messaging system as recited in Claim 33 wherein at least one of said event driven message and said periodic message is transmitted in band with packets transmitted from said slave device to said master device.

35. (currently amended) The messaging system as recited in Claim 33 wherein packets transmitted to said master device are packets received by said slave device over said switching network at least one of said event driven message and said periodic message is transmitted out of band.

36. (currently amended) The messaging system as recited in Claim 33 wherein said switching network is an asynchronous transfer mode (ATM) network at least one of said event driven message and said periodic message is transmitted across a local interface between said master device and said slave device.

37. (original) The messaging system as recited in Claim 33 wherein said master device transmits additional packets to said slave device based on at least one of said event driven message and said periodic message.

38. (original) The messaging system as recited in Claim 33 wherein said master device suspends transmission of packets to said slave device based on at least one of said event driven message and said periodic message.

39. (original) The messaging system as recited in Claim 33 wherein said periodic message is contained in a single packet.

40. (original) The messaging system as recited in Claim 33 wherein said periodic message enables said master device to determine a variation between a first clock associated with said slave device and a second clock associated with said master device.

41. (currently amended) For use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface to a slave device, a method for facilitating communications between said master device and said slave device, comprising:

generating an event driven message, including:

reading a level of a first-in, first-out (FIFO) buffer associated with a channel of said slave device, said slave device providing a network interface to said switching network for said master device,

comparing said level to a threshold, and

issuing an event driven message to said master device when said level reaches said threshold; and

alternatively generating a periodic message, including:

determining storage levels of a plurality of channels associated with said slave device, and

periodically issuing to said master device a periodic message over said local interface indicating said storage levels, said master device controlling transmission of

packets to said slave device based on at least one of said event driven message and said periodic message.

42. (currently amended) The method as recited in Claim 41 wherein said issuing comprises transmitting said event driven message in band with packets transmitted from said slave device to said master device.

43. (currently amended) The method as recited in Claim 41 wherein said periodically issuing comprises transmitting said periodic message in band with packets transmitted from said slave device to said master device.

44. (currently amended) The method as recited in Claim 41 wherein said packets transmitted to said master device are packets received by said slave device over said switching network issuing comprises transmitting said event driven message out of band.

45. (original) The method as recited in Claim 41 wherein said periodically issuing comprises transmitting said periodic message out of band.

46. (currently amended) The method as recited in Claim 41 wherein said switching network is an asynchronous transfer mode (ATM) network at least one of said event driven message and said periodic message is transmitted across a local interface between said master device and said slave device.

47. (original) The method as recited in Claim 41 wherein said master device transmits additional packets to said slave device based on at least one of said event driven message and said periodic message.

48. (original) The method as recited in Claim 41 wherein master device suspends transmission of packets to said slave device based on at least one of said event driven message and said periodic message.

49. (original) The method as recited in Claim 41 wherein said periodic message is contained in a single packet.

50. (original) The method as recited in Claim 41 wherein said periodic message enables said master device to determine a variation between a first clock associated with said slave device and a second clock associated with said master device.